AMENDMENT

Please amend this application as follows:

In the Specification

At page 22, line 21-22:

Example 2. Flow-through phytosecretion system

The flow-through phytosecretion system consisted of a stainless steel container (53 cm width x 34 cm depth x 20 cm height) with 15-24 soybean plants (glycine max) supported by the rockwool cubes inserted in the openings in the Styrofoam raft (5.0 cm thickness) which had dimensions slightly smaller than the internal dimensions of the container. This Styrofoam raft was floating on top of approximately 10 L of nutrient solution (2 g/L Hydro-Sol supplemented with 1.2 g/L $Ca(NO_3)_2$, aerated with compressed air supplied through an air hose placed on the bottom of the container. After 4-5 weeks, or when the roots reached the appropriate size ~~{PLEASE DEFINE - SIZE EQUIVALENT TO ____ ROOTS GROWN AS DESCRIBED FOR 4-5 WEEKS?}~~, the volume of nutrient solution was reduced to 2 L. The flow of the nutrient solution, with or without an elicitor, through the flow through system was maintained with a peristaltic pump (Variable Flow Mini-Pump, Fisher Scientific, Pittsburgh, PA), which allowed easy adjustments in the volume of the solution entering the system. Typically, flow rates used in the experiments ranged from 1.5 to 4.5 L/day. The intake tube of the peristaltic pump was immersed in a 60 L plastic storage container containing nutrient solution. Solution from the storage container dripped into the phytosecretion system through the tube attached to its wall. When necessary, elicitors were added to the storage container at the desired concentration. The solution was discharged from the phytosecretion container in the side opposite to the inlet through the opening cut in the bottom of the container. Solution level in the phytosecretion container was adjusted by changing the height of the opening of the outlet tube. Solution samples were taken from the end of the outlet tube at the specific intervals and analyzed for the presence of the phytosecreted compounds.

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At page 75, line 28-29:

The anti-cancer assays were conducted using a panel of three cancer cell lines, breast (NCI line MCF-7), melanoma (NCI line UACC-62), and renal (NCI line TK-10) cancer cell lines, or breast (NCI line MCF-7), central nervous system (NCI line SF-268), and non-small

a2

cell lung (NCI line NCI-H460) cancer cell lines. ~~[Do we have to worry about biological deposits and ATCC information here?]~~. A single-dose, 48-hour continuous exposure protocol was used and a sulforhodamine B (SRB) protein assay was used to estimate cancer cell growth. Anti-cancer activities have been expressed as percent growth inhibition. The numbers in the cells representing the detected anti-cancer activity are percentage growth of the corresponding cancer cells, calculated according to one of the following equations:

$$\frac{100x\ (MeanODtest - MeanODtzero)}{(MeanODctrl - MeanODtzero)}$$ If (MeanODtest - MeanODtzero)≥0, then PG=,

$$\frac{100x\ (MeanODtest - MeanODtzero)}{(MeanODtzero)}$$ or if (MeanODtest - MeanODtzero)<0, then PG=,

If (MeanODtest - MeanODtzero)>0, then PG=,
or if (MeanODtest - MeanODtzero)<0, then PG=,
where:
PG is percent growth;
MeanODtzero is the average of two optical density (OD) measurements of SRB-derived color in a cell culture just before exposure of the cancer cells to the plant extract;
MeanODtest is the average of two OD measurements of SRB-derived color in a cell culture after 48 hours exposure of the cancer cells to the plant extract; and
MeanODctrl is the average of two OD measurements of SRB-derived color in a cell culture after 48 hours with no exposure of cancer cells to plant extract.

In the Claims

1. [AMENDED] A method for eliciting a compound having therapeutic activity from a plant or plant part, comprising the steps of:

a) contacting a living, intact plant or plant part with an ~~effective~~ amount of acetic ~~acids~~ acid~~; and~~ effective~~——~~

~~——b) allowing the acetic acid~~ to induce ~~or improve~~ the production of ~~a~~ the compound from the plant or plant part; and

~~e~~b) recovering the compound from the plant or plant part into an aqueous medium.

2. [AMENDED] The method of claim 1, wherein the plant or plant part is contacted with ~~an~~ acetic acid in a concentration of about 0.1% (v/v) acetic acid.